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ABSTRACT

An attempt to adapt the U.S.-based IDEA (Instructional Development by Evaluation and Assessment) system to Great Britain is described. This widely-used method of faculty evaluation based on student ratings was pioneered by Kansas State University. Among the features of IDEA are the following: it relates student perceptions of teacher behavior to student perceptions of their own progress on a range of objectives: valid statistical inferences about behavior and progress can be made because of the large data base: and both the objectives and teaching behaviors are empirically derived. It was originally assumed that adapting IDEA to Britain would be uncomplicated since the instrument would be simple to administer, questions would need only superficial rewording, and the British and American scoring (and therefore norm) patterns would be similar. A discrepancy in scoring patterns was subsequently recognized but the instrument was judged to have diagnostic value for Britain. However, the rewording task was a more significant effort than originally anticipated. Other methodological and statistical problems led to the conclusion that the concept of IDEA, but not its specific instruments and program, could be transposed to Britain. It was decided that an entirely British instrument should be developed, tested, normed, and refined, and that Britain should develop its own program, called AID (Assessment for Instructional Development) and base it at a center at Plymouth or another appropriate facility. (SW)

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Paper Re S

SCEDSIP Conference, May 1977 (deleted portion was not proceeded with)

A.I.D. (Assessment fo... Instructional Development) - an English Adaptation of IDEA

C. C. de Winter Hebron

The IDEA system (it s...ands for Instructional Development by Evaluation and Assessment) is alread... well known to many SCEDSIP members, and others - certainly much more s... than it was 9 months ago, when proposals to test its acceptability and val... some readers are unfa...dity in Britain were first made. Nevertheless, in case this Conference, and ...iliar with it, an introductory leaflet is being circulated in is available for play... tape/slide of a presentation of the original American system about the system are ...ng in the foyer. In addition, some further opening comments ...ow made.

IDEA is one of the mo... widely used, and most sophisticated, student rating based evaluation systems in... the U.S.A. at present, and the Centre for Faculty Development and Evaluation i... Higher Education of Kansas State University, who pioneered it, already has exper... ance of operating overseas (University of Maryland University College, European Div... sion) albeit with American staff and students. Among such systems, IDEA is also ...nique in several respects, viz:

(1) It relates s... udent perceptions of teacher behaviour to student perception (thus avoidf their own progress on a range of objectives, Johnson, Rhog the conceptual objections to rating schemes of ...es & Rumery (c. Higher Education IV))

(2) It selects f... om those objectives for significance in line with individual ...acher objectives choice.

(3) Both the obj...ctives and the teaching behaviours listed are empirically ...erived

(4) By using a l... rge data base, (in U.S.A., almost 2 million evaluations by end of 19...6/77), valid statistical inferences about behaviour - progress re... tionships can be made, and are printed out for each case in pla... language.

and (5) The system i... deliberately designed as an input to in-house teaching consultancy, as an end in... with which (in U.S.A.) CFED staff also assist, and not itself.

(Further details about ...the operation of the system, as shown on the tape/slide programme, are contain... in pp 7 - 13 of Dr. B. R. Biles' funding proposal to the Exxon Foundation (d... t. 1976) for a project to investigate extending the system's use into Comm... Colleges in U.S.A.: copies of this will be made available with the prop... if it is approved).

Clearly, from the outse... any system possessing the characteristics listed above is likely to be a fron... in for the sort of use described in the TARGET/AID proposal, and when in ... 1976 the author was approached at Heidelberg IUT Conference by the syst... originator, Dr. B. R. Biles, as to the possibility of arranging a system trim... Foundation), he natural... in Britain (at that stage, to be financed by the Kellogg appear d highly intere... welcomed the suggestion. SCEDSIP members, also, and a small-scale trial... in the proposal (thought not all in favour of it), abilities were already ... of IDEA with 6 classes, taught by two teachers whose for October 1976* in N... well documented, and totalling 150 students, was arranged trial results in Novem... castle, withDr. Biles to address SCEDSIP and report the place as planned, and ... Dr. In the event, however, the meeting did not take and economic reasons (... Kelloggs had to withdraw from the project for political interest had by now be... T, it should be stressed, academic ones). Sufficient a draft version of a p... generated in SCEDSIP however for the author to undertake ...posal to go to DES for funds.

*It should be pointed o... that this was very much too early in the courses concerned to allow ...ch reliance to be placed on the student reports of their own progress: their reports of teach... behaviour, and their use of the instrument are however another matter.

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Adapting IDEA to the British situation.

Rather more initial difficulty however was experienced in adapting IDEA to the British situation than had been expected. It has been expected that the small-scale trial would show a)that the instrument would be a practical one to administer b) that the questions would need some superficial re-wording, but not much other alteration and c) that British and American scoring (and therefore norm) patterns would be similar.

In the event, only a) was completely confirmed - the instrument took about 15 minutes to administer, could be fitted quite well into the end of a class period, could be easily administered to full-time groups of all sizes from 4 - 55 students (though some minor administrative problems arose in attempting to use it with a part-time group) and, perhaps important, generated considerable enthusiasm among the students themselves.

Of the other two hypotheses, b) at first also appeared largely confirmed - students needed assistance with some phraseology, and found some questions couched in irrelevant or unfamiliar terms, or difficult to fit to the British situation, but it seemed at that time likely, that problems of local-fit of this kind could be overcome by "translating" the instrument, and omitting apparently irrelevant questions (or using standard additional/alternative questions provided).

Hypothesis c) was not confirmed at all, however. A careful comparison of score distributions from these 150 students with comparison printouts and (where printed) with comparative USA norms, demonstrated a steady discrepancy between British and American scoring patterns, with the USA norm sufficiently higher to result in British scores with a substantial spread above 3 on a 5-point scale being comparison-rated about one class lower than one would expect from first principles

(eg - mean score 3.1 - rating Low Average (expected Average)
mean score 4.3 - rating High Average (expected High)
mean score 3.8 - rating Average (expected High Average)
mean score 2.9 - rating Low (expected Low Average))

This tendency was observable throughout the instrument, and in results from both teachers: it was observable in 84 score distributions out of 234 in all, and the actual pattern and distribution of student scoring in both cases resembled that of British students in other questionnaires, including questionnaires to do with course analysis which did not ask about individual teachers. It is therefore likely that these patterns represent characteristic ways of scoring by British students.

It should however be stressed that once this different scoring had been recognised and the results discounted accordingly, the instrument did discriminate between the two teachers concerned in a manner consistent with their known strengths and weaknesses. (That is, the teacher known to be better from other evidence was rated higher, and the ratings showed areas of strength and weakness which were already known for the two men, from similar other evidence, in some detail) It is therefore reasonable to infer, despite the smallness of the numbers, that a system like IDEA may stand a very good chance of becoming as good a diagnostic tool in Britain as it is in USA.

On this basis, the author developed (Jan.1977) the first draft of a research proposal for adapting IDEA for use in this country, in four phases, as follows:-

Phase 1 (March-August 1977) : Rewording and renorming of IDEA instrument. (20,000 student response cards needed[1]

Phase 2 (1977/8 Session) : SCEDSIP Centre set up. Consultancy using Phase 1 instrument. Development of refined instrument using Thurlstone techniques.

Phase 3 (1978/9 Session) : Consultancy using Phase 2 instrument. Further refining of norms and questions.

Phase 4 (Sept. 1979 onwards): Centre established and operating on a regular basis.

1. Not necessarily 20,000 students! (Each student may respond to several classes)

Funding was to be for Phases 1 to 3 only.

A summary (and in some cases the full proposal) of this draft was circulated to interested parties in SCEDSIP for discussion, and almost immediately it became apparent that Phase 1 was impossibly short for the job it had to do. Assuming that the project was retimed so that Phase 1 lasted till August 1978, and other Phases delayed one year, however, there were alternative practical disadvantages.

(1) A great deal of the work would have to be done before the stage was reached where an independent Centre could properly be set up. Who would do it and where would the support come from?

(2) Because of the lengthy - and unexpected - pre-Centre stage, Dollar costs for the project would escalate considerably.

(3) In addition, the total project - now longer by over a year (to September 1980) than had originally been envisaged at the November 1976 conference - would cost much more overall (£200,000 or so in total) than had been expected, and probably more than would now be available fromDES.

(4) Meanwhile, proposals for the complementary TARGET project had emerged and initial funding had been obtained for it. It looked as if the two projects would on this new plan be thoroughly out of step both in time (TARGET Development being due for completion in July 1979, like the original IDEA proposal) and in finance invested.

(5) Also, there seemed to be considerable overlap in intention between Phases 1 and 2 of the revised IDEA project (why produce two instruments?), and between the proposed SCEDSIP consultancy centre and the method of working already being developed in the Plymouth centre (why produce two consultancy backup points and two random confidentiality systems?)

All in all, therefore, there seemed a strong case for reducing costs by proposing one centre (logically, the existing one at Plymouth) offering a single confidential service and developing in the first instance a choice of instruments. A corollary of this would be a revision of the IDEA project itself so that if possible TARGET and IDEA both completed their development phases simultaneously, so that their effectiveness and acceptability could be compared before SCEDSIP decided whether or not to recommend user cost-bearing support of the centre. This shortening of the timetable would incidentally in itself virtually halve the projected costs, leaving aside savings by merging Phases 1 and 2 or merging centres, since the January 1977 proposals peaked very strongly for costs in the final year.

In addition, by March/April 1977, certain methodological and statistical problems had been recognised, on closer analysis of the final results themselves together with additional norm material supplied from USA. These may be summarised as follows:

(1) Increasing documentary evidence existed from other studies of the cultural difficulty in effectively transposing a given specific instrument (as distinct from the concept behind that instrument) from USA to UK use.

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2. Discussions took place a)SCEDSIP Northern, Leeds, February 1977, b)UTMU, London March, 1977, c) Plymouth Polytechnic, April 1977, d)postally throughout the period.

(2) There was also increasing evidence that the instrument rewording proposed for Phase 1 could not be undertaken without endangering the validity of the instrument unless it was preceded by a carefully constructed 'test of meaning' experiment, which would again increase both timescale and cost.

(3) In discussion the initial trial UK printouts proved statistically unsatisfactory in five ways (in addition to the norm discrepancy already discussed):

(a) A substantial proportion of the lines were in bimodal distribution (this seemed to be true of British scores on other instruments too). The IDEA printout did not normalise these scores, and the accompanying literature gave what seemed good reasons for this (to do with distorting evidence of individual class characteristics), but neither did the programme provide for taking chi-squared and comparing for norm purposes only statistically comparable sub-groups and lines. It was felt that it should have done one or the other.

(b) Where differences in responses to teaching behaviour from a similar class mean were identified for diagnostic purposes as 'strength' or 'weakness', these differences were <u>not</u> tested for significance before verbal translation, but only for instrumental error. Properly, it was felt, significance tests should also have been part of the programme.

(c) The programme standardised all lines to base 100 (i.e. printed percentages), which for small classes if reported without raw score information could be misleading (and for some operations might be statistically improper). The IDEA literature stated this was done for class comparison purposes, but possibly raw score data should be available as well on the printout.

(d) The programme throughout used <u>the mean</u> as its major reference measure; it was at least arguable that a better measure would be the <u>median</u>, since this was less susceptible to random individual abnormalities of score. (The author was able to discuss this point with Dr. Biles, who indicated that the mean had been chosen as the American reference measure largely because more users of the system understood it than understood the median).

(e) The programme had no way of printing out the nature of line distributions (right skew, left skew, bimodal) either absolutely or compared with total databank population or subpopulation distributions, or alternatively the inter-quartile range. It was suggested one or both of these measures might be of value.

(Points a) to c) are clearly the most important)

It seemed that the only logical way of dealing with these problems, therefore, was to redesign the project, to involve the transposing to Britain not of IDEA's specific instruments and programme, but of the <u>concept</u> of IDEA, which has already proved effective in USA and which, as has already been discussed, has a number of features which clearly mark it out among behavioural systems/concepts as one of the most appropriate to the British situation. Put simply, this would involve two major changes to the project:

(a) Phase 1 as originally proposed should be dropped entirely, and the project should start right away on Thurlstone technique research to develop an entirely British instrument as originally proposed for Phase 2. (Details of this are contained on pages 10 and 11 of the full January 1977 proposal drafts). This should then be tested, normed, and refined (i.e. one part of the original Phase 3 would now be directly incorporated into the developmental process)

(b) The project should not now acquire the US programme and/or rights in the IDEA instrument, but instead develop its own: facilities for doing this exist at Plymouth, among other places (eg Leeds, Newcastle). Because the concept behind the system is however being used, Dr. Biles should be retained as consultant to the project, but backup services from CFED would not now be required, and the dollar fee for those could also be saved.

Because of these changes, it would now be improper to use the name IDEA to describe the system (the name is in any case copyright in USA), but any name chosen should clearly indicate the new system's indebtedness to the IDEA concept. After some discussions, the author and Dr. Keen selected the name 'AID', (Assessment for Instructional Development) used at the head of this proposal.